



SAMUEL CENTRE
FOR SOCIAL
CONNECTEDNESS

HelpAge

Canada

Older Adults on the Move:
Global Age-Friendly Transportation Innovations

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August 2021

EXECUTIVE SUMMARY

By 2030, the number of people aged 60 years and over is projected to grow by 56 percent, from 901 million to 1.4 billion globally.

In Canada, the proportion of older adults aged 65+ and older will outnumber the proportion of people aged 15 and under within the next 30 years. With this shift in demography comes additional challenges to aging, such as mobility, poor health, and social isolation. Unfortunately, social isolation of older adults brings higher incidences of premature death, depression, and dementia. One phenomenon that could help to explain the burden of social isolation is poor transportation. Poor access and availability to transportation for older adults exacerbates the effect of social isolation, and worsens social exclusion. One approach to improving transportation for Canadian older adults is to look to other successful international examples of age-friendly transportation. Therefore, the aims of this project, conducted in partnership with the Samuel Centre for Social Connectedness and helpAge Canada, are two-fold:

- 1) To capture a comprehensive list of international innovative solutions for age-friendly transportation.
- 2) To qualitatively explore the reasons for why global transportation innovations have been successful.

We conducted a global research scan of existing transportation systems and services to identify unique and innovative solutions. Research was focused on G20 countries, and while many innovative solutions to older adult transportation were uncovered, we short-listed a total number of 21 of the most innovative solutions for further analysis: 5 in USA, 5 in Australia, 3 in

Japan, 2 in the United Kingdom (including Scotland), 2 in Slovenia, and 1 in the Netherlands, Finland, Ireland, Sweden, Iceland, Greenland, and Norway. Transportation solutions were analysed and classified by their innovative component(s): leveraging either unique elements of policy, partnerships, or applications of technology (or combinations thereof). Three innovations were policy-focused, five were partnerships, and three were technology, seven combined partnerships and policy, and seven combined partnerships and technology.

Based on the results of our scan of international literature and our qualitative interviews, we recommend the following for Canada:

Older adults Transportation Policy

- 1) Establish a national overarching entity to provide ongoing support and governance to transportation programs operating at the local level.
- 2) Local transportation implementation needs to be community-led meaning that implementation should involve key stakeholders early and often. Key stakeholders who can help with efficient transportation governance include service providers and operators, not-for-profit or non-governmental organizations, and provincial, territorial, and municipal governments.
- 3) Transportation solutions should look for opportunities to create secondary benefits that go beyond just getting an older adult from point A to point B, i.e., opportunities to increase social connectedness and reduce social isolation.

Multisectoral Partnerships

- 1) To ensure long-term success and sustainability, older adults transportation initiatives should involve multiple partnerships including government, non-profit, and local private sector businesses. Multisector partnerships should provide the opportunity for multiple streams of funding from large scale corporate sponsors to government grants and contributions from local businesses.

Adapting Current Technology

- 1) Transportation initiatives must be able to secure the appropriate technology to operationalize and streamline their day-to-day service delivery. This means ensuring that the technology solutions are flexible to adapt to the needs of different communities.
- 2) Technology solutions must be affordable for all communities, from large, urban metropolises to small rural townships. Both the overarching national governance structures and multisectoral partnerships help to ensure affordable technology solutions by purchasing the technology solutions in bulk at discounted rate and offering affordable licenses to local communities.
- 3) Technology solutions must offer flexibility so local transportation programs can have different service delivery options (i.e., being able to drop a passenger at the door versus booking a trip where the driver will accompany them during their grocery shopping). Having flexibility in technology allows transportation providers to adjust service based on the customers' needs.

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RELEVANT CONTEXT

The Aging Population

The population is aging around the globe. By 2030, the number of people aged 60 years or over is projected to grow by 56 percent, from 901 million to 1.4 billion globally.¹ In Canada specifically, our proportion of older adults age 65+ will soon outnumber the proportion of people age 15 and under.² The aging population is set to mark one of the most significant demographic transformations of the 21st century. In Canada, the demographic shift can be explained by the ‘baby-boomer’ cohort entering their sixties, as well as by advances in health and medical technologies that extend life expectancy. Due to this, there is an increased demand for social services and transportation services, as older adults live longer, but with the ailments of aging.³ Thus, it is critical that we build solutions to ensure that older adults remain integrated into their communities.

Social Isolation

Social isolation is defined as the absence of social interactions, contacts, and relationships with family and friends, with neighbors on an individual level, and with “society at large.”⁴ Social isolation is associated with negative health outcomes (mortality, dementia, falls, and re-hospitalizations) and reductions in quality of life and well-being in the older adult population.⁵ It also significantly increases a person’s risk of premature death from all causes, a

¹ Tommy Bengston and Kirk Scott, 2010 *The Ageing Population*, 7-22.

² Statistics Canada, 2006. *A Portrait of Seniors in Canada*.

³ James Knickman and Emily Snell, 2002, “The 2030 Problem: Caring for Aging Baby Boomers.”

⁴ Robert L. Berg and Joseph S. Cassells, 1992, *The Second Fifty Years: Promoting Health and Preventing Disability*.

⁵ Dobbs, B., E. Hussey, and T. Pidborochynksi. “Transportation Mobility and Social Isolation in Community-Dwelling Older Adults.”

risk that may rival those of smoking, obesity, and physical inactivity.⁶ Therefore, social isolation is beyond just a “feeling” loneliness; rather, it can be considered a social determinant of health. There are a variety of risk factors that may increase the possibility of older adults becoming socially isolated.⁷ These include, but are not limited to, the following:

- *living alone;*
- *being age 80 or older;*
- *having compromised health status, including having multiple chronic health problems;*
- *having no children or contact with family;*
- *lacking access to transportation;*
- *rural and urban place of residence;*
- *living with low income; and,*
- *changing family structures (i.e. tendency towards smaller families, younger people migrating for work and leaving older adults behind, etc.)*

Due to these and other risk factors, nearly one-fourth of adults aged 65 and older are considered socially isolated,⁸ with 30% of Canadian older adults classed as “at risk” for becoming socially isolated.⁹

Based on the evidence, social isolation is a threat to our aging population. Social isolation comes into focus as an issue that requires immediate attention and consideration in all present and future planning and programming. A lack of transportation has been linked to social isolation in older persons; particularly, a lack of mobility directly affects patterns of social engagement by limiting people's access to various resources, services, and opportunities to

⁶ John T. Cacioppo and Stephanie Cacioppo, 2014, “Older Adults Reporting Social Isolation or Loneliness Show Poorer Cognitive Function 4 Years Later.”

⁷ British Columbia Ministry of Health, 2004, “Social Isolation among Seniors: An Emerging Issue.”

⁸ The National Academies Press, 2020, “Social Isolation and Loneliness in Older Adults: Opportunities for the Healthcare System.”

⁹ National Seniors Council, 2014, *Report on the Social Isolation of Seniors 2013-2014*.

socialize.¹⁰ This report contends that social isolation should be considered in any age-friendly service, intervention, or solution, but especially considers the importance of transportation in combating older adult isolation.

Older Adult Transportation

One element of modern life that could explain the burden of social isolation is poor access, availability, affordability, and appropriateness of transportation. A lack of accessible transportation options reduces social participation rates, which could negatively impact overall health outcomes.¹¹ Further, the lack of accessible transportation inhibits visits to medical appointments, grocery store trips, and introduces barriers to seeing family and friends.¹² Lack of consideration for older adults when creating transportation creates barriers to social participation, and worsens social isolation and exclusion.¹³ Older adults will not benefit from opportunities to engage with their community and maintain social networks if they are unable to access proper transportation.

Urban and Rural Transportation

Canada's low population density and expansive geography makes transportation in urban and rural communities uniquely different. There is a distinct urban and rural divide between the transportation options available in dense metropolitan cities versus sparse rural and remote towns. In dense metropolitan cities, older adults typically have a variety of choices,

¹⁰ National Center for Mobility Management, 2020, "The Role of Transportation in Addressing Social Isolation in Older Adults"

¹¹ Martin Turcotte, 2012, "Profile of Seniors' Transportation Habits."

¹² Samina T Syed, Ben S Gerber, and Lisa K Sharp, 2013, "Traveling Towards Disease."

¹³ Ibid.

from conventional and specialized public transit, private taxis, rideshares, or community transportation providers, whereas rural and remote towns may not have the same amenities. Approximately one-fifth (22%) of Canadians over the age of 65 live in regions outside census metropolitan areas and these older adults are faced with additional transportation barriers than their urban counterparts.¹⁴ Transportation for Canadian older adults must consider the geographic location of its clients.

Transportation as an unmet need

Current demographic transitions will have significant ramifications on transportation infrastructure design across the country, as currently, many Canadian older adults are living without accessible transportation. For instance, 42% of older adult non-drivers reported that they had unmet transportation needs.¹⁵ These unmet needs can involve planning a journey, traveling from home to a terminal or station, obtaining transportation vehicles, boarding and mobility on board vehicles, and post-trip traveling.¹⁶ Unfortunately, the inability to access transportation has left more than 37% of Canadian older adults reporting that they experience social isolation on a regular basis.¹⁷ Therefore, providing older individuals with access to an inclusive transportation system will allow them to participate in more types of travel that are tailored to their specific needs and preferences. To fully meet the transportation needs of Canadian older adults, a single solution will not suffice. What is important is to give Canadian older adults *options*. This may involve a national network of private, public and volunteer

¹⁴ Council of Canadian Academies, 2017, "Older Canadians On the Move."

¹⁵ University of Alberta, 2017, "Alberta Provincial Transportation Needs Assessment Alberta Provincial Transportation Needs Assessment."

¹⁶ Ibid.

¹⁷ Ibid.

community driver programs to ensure Canadian older adults have the options they need at a local level.

Older adults aren't using public transportation

Notably, most older adults do not use public transit as their main form of transportation, with less than 6% of older adults using public transit.¹⁸ Even when cost barriers are removed, there is still a lack of uptake in older adult's transportation. Researchers from Canada found that 63% of older adults stated that the Ride for Free, a public transit program for older adults based in Canada, did not impact their travel behaviour, despite over 94% of older adults being aware of the program.¹⁹ Therefore, cost alone is not the critical barrier to older adults accessing public transportation. Older adults aren't using public transportation for the following reasons:

1. Poor Availability

Transit systems are limited to Canada's largest municipalities, however, more older adults in Canada are choosing to live in rural or remote communities as they age, where public transit is limited or unavailable. This is a significant gap, as one-fifth of those aged 65 or older live in regions outside census metropolitan areas. For example, public transit coverage in Ontario illustrates the rural transport challenge. Ontario has 444 municipalities, but only 96 public transit systems. Even within the communities that offer robust public transportation

¹⁸ Conference Board of Canada. 2016. "Managing Mobility."

¹⁹ Stephanie Mah, 2015, "Assessing Seniors' Perspectives Towards Ride for Free Public Transportation: A Case Study in Oakville, Ontario."

systems, for the reasons cited both above and below, not many older adults are utilizing public transit even when it is readily available.

2. Not age-friendly

When older adults can no longer drive, some may consider alternatives like public transit. Unfortunately, the reasons why older adults no longer drive like declining health and reduced mobility are also the reasons why public transit is often not a viable transportation option. Accessibility barriers make up a large part of public transit challenges for older adults, but also it is often simply the physical and mental stamina required to plan their trip, walk to the bus stop and board the bus that can make public transit an impossible task for aging Canadians. Canadian public transportation infrastructure was not forged with age-equity in mind, and hence, it largely does not meet the needs for Canadian older adults.²⁰

PROJECT OVERVIEW

F.A.S.T. (Funding Accelerator for Senior's Transportation) track

F.A.S.T. (Funding Accelerator for Seniors' Transportation) Track is a transportation solution incubator with the goal of identifying forward-thinking solutions for transportation that meets the needs of older Canadians, with a focus on providing visibility, financial support and expertise to help implement and grow the most promising options. With F.A.S.T. Track, municipalities, community groups, and other private and non-profit organizations can submit their proposals for innovative solutions for older adult's transportation, which are then evaluated by a national network of transportation and aging experts. A key component of the project's approach to improving transportation for Canadian older adults is to look to other

²⁰ Ibid.

international examples of age-friendly transportation solutions for inspiration (described in Methods section). F.A.S.T is a HelpAge Canada project, and the central component of this research report.

Project Members

Working collaboratively on the older adults transportation innovation scan, which will support the broader work of HelpAge Canada's F.A.S.T Track Project, are the following key research partners:

1. HelpAge Canada

HelpAge Canada is an active national and international charitable organization in operation since 1975, and is Canada's only national charity exclusively focused on older adults. Their mission is to work in partnership with others to improve and maintain the quality of life of vulnerable older persons and their communities, both in Canada and around the world. Their vision is a world in which all older persons will lead secure, healthy, active, and dignified lives. Their work and strategic priorities in Canada continue to focus on addressing older adult isolation, loneliness, and wellbeing especially among low income and marginalized populations.

2. CanAge

CanAge is Canada's national older adults' advocacy organization founded with the mission to advance the rights and wellbeing of Canadians as they age. CanAge is an independent nonprofit organization which educates, empowers, and mobilizes people on the issues that matter most to older Canadians.

3. *O'Hara Aging + Accessibility Inc.*

Aislin O'Hara has over 14 years of experience in older adults' transportation, public transit and accessible age-friendly transportation programs. Aislin is a published transportation research author and an international presenter on older adults' mobility. Aislin is considered one of Canada's top older adults' transportation & mobility experts.

METHODS

All report research and subsequent recommendations are made based on literature search, analysis of existing services, and through observations and learnings garnered by conducting Zoom interviews with older adult transportation professionals. The literature search and initial findings were derived primarily from online sources, namely, by closely examining international and national reports, news articles, and policy and research reports. Interviews were conducted remotely through video conference platforms like Zoom, Iris.fm, and Microsoft Teams.

Objective 1: Capture a list international innovative solutions for age-friendly transportation

Defining innovation

Before identifying age-friendly innovative solutions, we needed to first define innovation. To do this, we performed an initial scan of existing age-friendly innovations awards using Google and Google Scholar. From this, we compiled a master list of transportation awards and grants that have initiated funding opportunities for age-friendly transportation innovations. The repository list of awards allowed for us to draw on key criteria to define our selection of innovation criteria against which to benchmark identified transportation solutions. We derived

inclusion and exclusion criteria for age-friendly innovative solutions. These inclusion and exclusion criteria were defined in the context of the existing Canadian transportation landscape. For example, solutions that are not viable in a Canadian context because of climate, rurality, etc., as well as solutions that already readily exist in Canada, were not short-listed in our research. Age friendly transportation would be included in our master list if it captures any of the following:

- Multi-sectorial partnerships (ie. Public-private partnerships).
- Creates secondary gains (i.e. social, environmental, etc.)
- Services and solutions that are community-led, community-driven & community-delivered.
- Offered a more seamless experience for the passenger that went above and beyond door-to-door service and door-through-door service.
- Made use of existing resources in the community when they would otherwise be idle (i.e., repurposing delivery vehicles for passenger transportation).
- Resulted in the creation of policy innovations including updates or creation of policies, practices, or regulations that led to a significant improvement in transportation/mobility outcomes for older adults.
- Included unique operational or logistical systems, processes or procedures that made the solution financially sustainable.

Exclusion criteria:

- Simple community transport networks (not considered innovative as this is the basic model for older adult transportation in Canada which is presently not adequately meeting the needs of Canadian older adults).
- Free or subsidized public transit passes or fares (which have been shown to have a minimal impact on older adult mobility as cited previously in this report).
- Provides trips for one type of purpose (e.g., medical trips only) as this does not holistically address the needs of older adults in Canada.

The International Scan

The innovation scan included a large focus on G20 countries with robust age-friendly initiatives, such as the United Kingdom, the United States, Japan, and Australia. We also sought to analyze comparable countries to Canada in terms of economy, prominence of cities,

and lifestyle. An added benefit will include building and developing relationships with international age-friendly organizations and inviting communities that have successfully implemented solutions that addressed the needs of older adults, to present at the National Conference of Older Adults Transportation in 2022.

Partnerships, Policy and Technology Streams

After defining innovative transportation, we categorized the innovations into three streams:

1) *Partnerships*

2) *Policy*

3) *Technology*

A partnership innovation is defined as older adult transportation services that are the result of two or more partnerships, perhaps public-private partnerships. A policy innovation includes new policies, regulations, or practices that have led to a significant improvement in transportation/mobility outcomes for older adults. A technology innovation is defined as anything that leverages technology to improve older adults' transportation, either through an app, a contact centre, a unique scheduling system, etc.

Objective 2: Qualitatively explore the reasons for why transportation innovations have been successful globally.

Capstone Innovations

Capstones were key innovations that were selected from the masterlist of identified solutions for further exploration. Capstones were selected because they represented key innovations that we wanted to learn more about, and that represented unique innovations that

Canada could draw key lessons from and inspire domestic solutions for age-friendly transportation. The capstones were also selected based on scalability and replicability. For example, all capstones were operating across a country, rather than in a small community.

Outreach & Interviews

After compiling a working list of innovations, we contacted the 3 capstone innovators from each of the 3 streams to further understand their solution. We prepared specific questions to ensure that barriers and facilitators to transportation for older adults were well captured.

ISSUE, EVIDENCE, KEY FINDINGS

Issue & Evidence

As previously discussed, social isolation has had a detrimental impact on the livelihoods of Canadian older adults. This problem has been growing, and its proliferation has a direct effect on public health. One compounding factor of social isolation in older adults is transportation, or a lack thereof. Current transportation concerns are often addressed on an ad hoc basis, utilizing a patchwork of inadequate solutions, resulting in many municipalities being left fragmented and without the assistance needed to properly implement and scale transportation solutions. Moreover, with the lack of inherent age-friendliness of public transit, government-subsidized “Seniors’ discount” fares don’t significantly improve the mobility of older adults. The mix of older adults’ transportation options that are available across Canada face the same barriers preventing them from significantly moving the needle. These include:

- a) Financial constraints – most independent organizations lack funding to purchase vehicles and many of those who have funding lack sustainability, i.e. limited government grants.
- b) Knowledge & resource constraints – many non-profits or public sector groups try to implement transportation solutions, however, they may be tight on resources. Those who do have dedicated resources often lack the knowledge and expertise required to successfully implement and operationalize efficient and successful transportation solutions, or solutions that meet the unique needs of older adults.
- c) Service constraints – if an older adults transportation solution is in place for a community, it is not uncommon for there to be service limitations. For example, the service may be restricted for medical trips only, or only for older adults attending a specific adult day program, etc.

Key Findings

From the international innovation scan, we derived a short-list of 21 of the most innovative solutions for further analysis. 2 innovations were policy-focused, 4 were partnerships, and 1 was technology; 7 combined partnerships and policy, and 7 combined partnerships and technology. While originally considering an additional 42 innovations, upon further research they were excluded because they did not meet our definition of innovation. The capstone innovations are briefly summarized below. Findings and further analysis of the innovative elements of each innovation follow.

TOP FOUR INNOVATIONS

The Independent Transportation Network (ITN) of America

- *Innovation Category: Partnership*

Overview of Solution and Impact:

The Independent Transportation Network (ITN) of America is the first national, non-profit transportation model that utilizes a network of volunteer drivers to serve the transportation needs of older adults. ITNAmerica has a network of partnerships, which are affiliated with non-profits nationwide that offer ride service to older people and visually impaired people. Riders over the age of 60 can become a member with an affiliate ITNAmerica organization in their local area. Roughly 40 percent of ITNAmerica rides come from volunteer drivers, though the model also uses paid drivers. In addition to providing rides, ITNAmerica offers: 1) Ride Credits where older adults can utilize credits as a form of currency for rides by trading their vehicle or dedicating their time to provide rides; 2) a CarTrade Program where older adults can trade their vehicles for ride credits; 3) a 50 State Policy Project which improves mobility for older people by expanding the pool of resources available for older adult transportation through public policies that remove barriers and create incentives for the use of private resources; 4) a Rides in Sight database which is a publicly available searchable database supported by a dedicated call-in phone line that people can call to learn about the transportation options in their area. In addition to ITNAmerica's existing services, they are also launching ITNCountry, which is a pilot project of a similar service for rural communities in the US. To this date, ITNAmerica has provided 1,300,00 total trips, gained 3,548 Active members and has 437 active volunteers.

Ride@50+, USA

- **Innovation Category:** *Technology and Partnerships (Toyota, Feonix Mobility Rising, American Association of Retired Persons)*

Overview of Solution and Impact

Ride@50+ Program, founded in 2018, is a one-stop shop for accessing public and private transportation options, providing a single point of access to review, compare, and book local transportation alternatives. Ride@50+ is built on the Mobility as a Service (MaaS) framework, which is an emerging type of service that, through a joint digital channel, enables users to plan, book, and pay for multiple types of mobility services. The MaaS framework combined with a solution tailored for older adults makes booking options flexible and age-friendly. Bookings can be completed through an online platform, call centre, or mobile app and individuals can book essential trips, social trips, such as the grocery store, pharmacy, or other medical appointments. Ride@50+ trips are affordable for the clients, and the cost of each ride depends on the length and transportation option chosen.

Ride@50+ encompasses 3 big partnerships with large companies (Toyota, AARP, Feonix). Through this three-way partnership where Toyota plays a role in funding through a social innovation grant, AARP supports the service delivery, and Feonix Mobility Rising powers the MaaS technology operations. Ride@50+ also provides Virtual Training for older adults to learn more about local transportation options which means Ride@50+ promotes and supports digital literacy. Notably, Ride@50+ provides free rides for COVID-19 vaccine appointments.

PlusBus, Netherlands

- ***Innovation Category: Partnerships***

Overview of Solution and Impact

PlusBus, founded in 2006 and operated under the National Foundation for the Elderly (NFE), is a mobility service that provides rides for older adults by offering communal vans run by volunteer drivers. NFE acts as a national governance structure for older adults in the Netherlands and this has allowed PlusBus to grow and operate at a large scale across 90 municipalities. The NFE leases accessible buses for local communities which are then operated by volunteer drivers. Part of PlusBus' mission is to get older people out of their home, into the community, and to enable social opportunities - especially for those who have reduced mobility. Therefore, PlusBus will support older adults who need to go to any destination (for example a coffee shop, family visits, or a garden center). In fact, PlusBus tends to pair an essential outing with a social outing (for example, they may schedule a trip to get groceries followed by lunch at a café for all clients joining that morning's trip). To ensure long-term sustainability within communities, PlusBus aids communities by providing communities funding for the first year, provides a tool kit for sponsorships, and helps communities not only build a customer base, but also to build multi-year and diversified funding from a variety of sources within the community.

Transport for New South Wales, Australia

- ***Innovation Category: Policy***

Overview of Solution and Impact

Transport for New South Wales is an agency created in 2011 by the New South Wales government for sole responsibility of transportation over the state. Transport for New South Wales is considered a policy innovation because New South Wales passed a legislation to create an agency to become the sole transport authority over the state, and is considered a partnership innovation because they work in tandem with local providers who operate the services. Transport for New South Wales is innovative because of its unique approach to making the state the centralized coordinating body of transport policy and planning, which supports local providers. Transport for New South Wales is responsible for improving the customer experience, planning, programme administration, policy, regulation, procuring transport services, infrastructure and freight. The organization is the regulating body for all forms of transport, including taxis, buses, trains, ferries and tourist vehicles. The agency was formed specifically to challenge the silo mentality of transport provision in New South Wales, achieving cost savings and avoiding duplication of services.

Transport for NSW oversees many transportation initiatives supporting older adults including the Community Transport Programme. The Community Transport Programme provides door-to-door transport for people whose access to mainstream transport services is limited by physical, social or geographical factors. The Community Transport Programme is centrally coordinated by Transport for NSW but local providers operate the services. The Community Transport Program will assist riders to take part in activities that promote social

inclusion and to obtain goods and services required for daily living such as groceries and clothing, medical services and other essential services and provide connections to Public Transport through their call centre. Another unique service operated by Transport for NSW is the Commonwealth Home Support Program which provides funding for the provision of community transport services to community transport providers.

Common Themes

From the interviews and the innovation scan, key themes emerged, such as multi-sector financing, secondary benefits beyond just mobility, and community-led and community-driven solutions.

Multi-sector financing

One common thread we found across the capstone innovations was that to be sustainable, financial support was required from multiple different sectors including public, private, and government. When asked specifically to comment on funding models, our capstone innovators said:

“Government, industry and philanthropy need to work together”

– Katherine Freund, iTNAmerica

“Funding for the organization [NFE] comes from the federal government (including the lottery), but funding from local shops and sponsorship deals keep the busses running”

– Eva Siderakis, PlusBus

These international innovators demonstrate that one stream of funding is not sustainable to run age-friendly transportation solutions; rather a mix of funding is key to successful

implementation and program longevity. In addition, both iTNAmerica and PlusBus provide financial support to any new communities implementing transportation programs through their first year of operations. When we asked PlusBus in what ways they support the community, they responded:

“During the first year, we pay the cost of the vehicle lease and gas and also help them with finding funds and sponsors, including providing them with toolkits for how to do public relations & communications, etc.”

- Eva Siderakis, PlusBus

Another unique financing method Ride@50 and iTNAmerica have implemented in their innovations is to work together with companies like hospitals and grocery stores to help subsidize rides for older adults. For example:

“When it comes to funding, one way to assign responsibility is to examine who benefits. An obvious beneficiary of a robust transportation network is a rider, but individuals that need transportation cannot always afford to pay. Instead, it may make the most sense from a sustainability perspective for multiple beneficiaries to share the financial burden for an effective transportation network. Organizations from grocery stores to restaurants or large employers benefit from people having access to their facility or service, and a collaborative funding approach can help ensure transportation access for all.”

– Kate Schramm, Feonix Mobility Rising (Ride@50+)

“We created a program where the destination will help pay for the ride. For example, a medical centre or hospital will help subsidize the rides for patients and the supermarket will pay for rides for the shoppers.”

– Katherine Freund, iTNAmerica

Community-led

Another emerging theme was community-led solutions. Although iTN, PlusBus, and Ride@50+ are all national-scale solutions, there is flexibility at the local level in how day-to-day

operations are run. This results in buy-in and community support for the service and allows them to meet local needs but leverage the support and expertise of a supporting organization.

“We are a community-led transportation solution. We believe that from the beginning, you need to have the community behind you.”

– Kate Schramm, Feonix Mobility Rising (Ride@50+)

“It is important that PlusBus offers opportunities for older people to go out and be part of the local community. Although the we [NFE] may measure PlusBus’ performance using key performance indicators, we do not define what success looks like - the community does”

– Eva Siderakis, PlusBus

“I don’t want iTNAmerica to be in front of communities, I want iTNAmerica to be behind communities”

–Katherine Freund, ITNAmerica

Secondary benefits

One common characteristic contributing to innovation uptake and support occurred when transportation solutions showed secondary outcomes beyond older adult transportation and mobility. For example, one secondary benefit that emerged was reducing social isolation and promoting connectedness amongst their older adult customers. iTNAmerica and PlusBus solutions both encompass a secondary goal to reduce isolation.

“Our mission is to get older people out and about and reduce loneliness and isolation, especially frail older people who cannot go out on their own due to reduced mobility”

– Eva Siderakis, PlusBus

The theme of preventing social isolation was interwoven throughout many of the innovations identified in the scan. For example, iTNAmerica believes that outliving the ability to drive

doesn't lead to a life of isolation; Prostofer in Slovenia hopes that their service can lead to greater social inclusion; Vantastic and Sopotniki in Europe both use a metric to measure how they are reducing isolation; and Choisoko and Tuchikubo shopping clubs in Japan want people to connect with others by leaving the house and participate in social activities. While social connectedness is not inherently the driving motivation behind many innovative transportation benefits, it is more often than not a secondary benefit that stems from supporting older adults' transportation. In the following section, innovations are described in greater depth, showcasing the elements that contribute to social connectedness by way of increasing older adults' transportation.

Table 1: Summary of Innovations

Service/ Organization	Country	Description	Category of Innovation	Innovation Factor
Ride@50+ Toyota, Feonix, American Association of Retired Persons (AARP)	USA, Texas	Ride@50+ Program is a one-stop shop for accessing public and private transportation options, providing a single point of access to review, compare, and book local transportation alternatives. Ride@50+ is built on the Mobility as a Service framework which is powered by Feonix – Mobility Rising. Service Delivery Model: Ride@50+ operates under a Mobility-as-a-Service (MaaS) framework.	Technology & Partnerships	Ride@50+ encompasses 3 big partnerships with large companies (Toyota, AARP, Feonix). Ride@50+ also provides Virtual Training supporting digital literacy.
The Independent Transportation Network (ITN) of America ITNAmerica	USA, everywhere except Texas	The Independent Transportation Network (ITN) of America is a non-profit transportation model that utilizes a network of volunteer drivers to establish community transportation programs in local affiliate sites. ITNAmerica serves as the national overarching governance, providing affordable technology, training and ongoing support to its local network of providers. Recently expanded to launch ITNCountry to provide solutions to rural communities. Service Delivery Model: Volunteer Driver Programs including Ride Credit currency, CarTrade Programs, driving policy initiatives and the Rides in Sight database.	Partnership & Policy	The <i>ITNAmerica Nationwide Network</i> , includes 13 independent non-profits in 12 states stretching from Maine to Florida to California. In previous years the network grew as large as 25 affiliates.
PlusBus National Foundation for the Elderly (NFE)	Netherlands	The Netherlands National Foundation for the Elderly oversees PlusBus, an older adults transportation service utilizing volunteer drivers to provide rides for up to eight older adults for every individual bus. PlusBus programs have been established in 90 municipalities in the Netherlands. Buses are operated at a local level, with ongoing support from the NFE. Service Delivery Model: National overarching organization, leases buses and implements them using volunteer drivers in over 90 municipalities across the Netherlands. PlusBus aims to reduce social isolation by providing opportunities for social connections.	Policy & Partnerships	PlusBus represents policy innovation due to the secondary gains related to social connectedness and creating micro communities.
Transport for New South Wales	Australia	Transport for News South Wales organizes the Community Transport Programme, providing door-to-door transport for people whose access to mainstream transport services is limited by physical, social or geographical factors. The Community	Policy & Partnerships	Transport for New South Wales is considered a policy innovation designed by the Government of New South Wales. Transport for New South

New South Wales Department of Transport		<p>Transport Programme is centrally co-ordinated by Transport for NSW but local providers operate the services.</p> <p>Service Delivery Model: Transport for New South Wales is a policy-driven program created in 2011 to better integrate and support transportation for residents of New South Wales.</p>		Wales is innovative because of its unique approach to making the state as the centralized coordinating body of transport policy and planning support local providers.
Siilinjärvi Service Line Municipality of Siilinjärvi	Finland	<p>Siilinjärvi Service Line is a program created by the Siilinjärvi community to provide rides for older adults.</p> <p>Service Delivery Model: Siilinjärvi Service Line is a minibus service which is reserved for transporting older adults to day-centres during the day, and then used as a dial-a-ride service for public users outside of regular riding hours.</p>	Policy	The Siilinjärvi Service Line is an example of a policy innovation because it was initiated by the Siilinjärvi community. Siilinjärvi Service Line an example of how a bus can be used for regular transport in an isolated area at fixed times but is then freed up to provide a more demand-responsive service.
Interconnect Lincolnshire County Council	UK	<p>Interconnect is a service designed to connect isolated older adults in rural areas to the main transport network.</p> <p>Service Delivery Model: Interconnect is a call centre which connects older adults in rural areas to a main transportation network.</p>	Policy & Partnerships	Interconnect is a policy innovation because it is organized by Lincolnshire County Council. Interconnect is considered partnership innovation because a partnership exists between Interconnect and CallConnect, an auxiliary service which helps pairs passengers to the driving service.
Lively Rides Lively	USA, Texas	<p>Lively Rides is a ride service which partners with Lyft to provide transportation to older adults through Jitterbug phones. Lively Rides provides Jitterbug phones to clients, the phones are basic, non-smartphones that are age-friendly. Through their Jitterbug phone, customers simply press "0" and request a ride through an operator.</p> <p>Service Delivery Model: Lively Rides is a centralized hub to book rides.</p>	Technology & Partnerships	Lively Rides is considered a technology innovation because Lively Rides offers handheld cell phones which connects older adults to a Personal Operator to book Lyft Rides. Phone. Lively Rides has partnership with Lyft and Jitterbug.
myroute Toyota, Microsoft	Japan	<p>Myroute is a technological application which lets users plan a ride by inputting a destination and then selecting from different routes and means of travel, including walking, buses, trains and taxis. Myroute has payment services as well as destination information such as restaurants and cafes.</p> <p>Service Delivery Model: Myroute is a multi-modal service which allows users to plan and book rides.</p>	Technology & Partnerships	Myroute is a technology innovation which generates routes and optimal ride options for clients through an application. Myroute encompasses a partnership with Toyota Motors.
Choisoko Aisin	Japan	<p>Choisoko is a technological application that connects riders with a Choisoko shared shuttlebus. Choisoko utilizes a vehicle allocation algorithm which optimizes rides between riders to transport as many residents as possible. Choisoko also uses an algorithm to plan an optimal route to ensure maximum efficiency if there is more than one rider.</p>	Technology	Choisoko is a technology because it uses a unique algorithm to optimize routes for clients.

		Service Delivery Model: Choisoko is a type of Mobility-as-a-service helps the riders book nearby shuttlebuses.		
RideWith24 24hour home care	USA, (Texas, Arizona, California)	RideWith24 is a dispatching service for older adults. The program was developed by 24Hr Homecare in partnership with Uber. The program partners with the Open Doors Organization to train Uber and taxi drivers to accommodate older passengers who may have physical limitations. Service Delivery Model: A call-centre used to book on demand rides.	Technology & Partnerships	RideWith24 is considered a technology because it connects a rider to a driver using a toll-free phone number. RideWith24 is considered a partnership innovation because they partnered with Uber to give riders direct access to Uber without having to use an application.
BusBot Project EasyMile, BUSWAYS	Australia	The BusBot Project a driverless shuttle providing on-demand service. The BusBot Project operated in Marian Grove Retirement Village to test a more complex environment and the ability of AVs to address various mobility needs. Service Delivery Model: The BusBot Project provides door-to-door driverless transportation e looking to expand into the public market.	Technology & Partnerships	The BusBot project is a technology innovation because the bus itself is an self-automated vehicle. The BusBot project is a partnerships innovation because they have partnered with Transport for New South Wales, Busways, EasyMile, and Via.
Prostofer Zreče Municipality	Slovenia	Prostofer is a service which arranges and provides free rides for older adults in rural municipalities in Slovenia. The Prostofer name combines the Slovene words for "voluntary" and "chauffeur". Users call the communication center, called "Golden network", which pairs the user with a volunteer driver. Service Delivery Model: Prostofer is a service which arranges and provides free rides for older adults.	Policy & Partnerships	Prostofer is a partnerships innovation because they partner with Petrol, a company who supplies electric vehicles. Prostofer is a policy innovation because it was an initiative funded by the municipality.
Tochikubo Shopping Club Hadano city	Japan	The Tochikubo Shopping Club is a volunteer-run transportation service where volunteers drive a vehicle offered by the social welfare facility in Hadano City to take residents to a supermarket once a week. Service Delivery Model: The Tochikubo Shopping Club is a volunteer-run transportation service for older adults providing weekly trips to the supermarket	Policy & Partnerships	The Tochikubo Shopping Club is a partnership innovation because Hadano City partners with a social welfare facility to provide vehicles. The Tochikubo Shopping Club is a policy innovation because it was organized by Hadano City.
Rural Transport Solutions 4.5 European Union	Finland, Ireland, Sweden, UK, Iceland, Greenland, Norway	Rural Transport Solutions is part of the Northern Periphery program. This program is a network of multi-model transportation models in rural and coastal in Northern Periphery. For example, the Koli shuttle taxi provides rides between Joensuu to Koli National park for inhabitants. The Village bus in Kolsillre, is free bus that transports a group of passengers to and from their destinations. Service Delivery Model: Rural Transport Solutions is a policy that enables multi-model travel within the public and private sector	Policy & Partnerships	Creates a service while also addressing public transport legislation and financing

FlexiRide App Ventura	Australia	FlexiRide app is a technological application that will suggest the most efficient routes for users. FlexiRide directs passengers to a nearby pick-up location - once the ride is booked, riders receive guidance to a virtual bus stop within a short walking distance. Service Delivery Model: The FlexiRide app is an application which acts as a centralized hub to book rides.	Technology and Partnerships	The FlexiRide app is a partnership innovation because it encompasses a three-way partnership between Ventura (Australian state of Victoria's largest bus provider), FlexiRide (an urban mobility app available to those living in Rowvill and Ferntree Gully), and Department of Transportation Victoria. The FlexiRide app is a technology innovation through Mobility-as-a-Service.
GoGoGrandparent GoGoGrandparent	USA	GoGoGrandparent acts as a dispatcher for Uber and Lyft to provide rides specifically to older adults. Older adults who have difficulty using phone applications or do not own a smartphone can use the service to have access to surrounding TNCs. Users call GoGo operators, and operators order a ride from a TNC to arrive at the user's home. Service Delivery Model: A centralized hub to book rides	Technology & Partnerships	Partners with two major companies, makes it easy to use for older adults because it doesn't require a cell phone. Many endorsements (ie. door dash), many news outlets have reported about them.
HcL (Handicabs Lothian) Transport HcL (Handicabs Lothian) Transport	Scotland	Handicabs Lothian (HcL) provides door-to-door transport by providing a "through-the-door" service, ensuring that our passengers receive the assistance they need at the start and end of their journey. Handicabs Lothian (HcL) operates 2 main services in the Lothians Dial-A-Ride and Dial-A-Bus. Service Delivery Model: Volunteer drivers help provide free transport for older adults in rural areas	Policy	Handicabs Lothian is a policy innovation because they signed an agreement with the City of Edinburgh to operate the buses and are also funded by the city.
Link Community Transport LINK Community Transport Inc.	Australia	LINK Community Transport Inc. is a not-for-profit organisation providing transport solutions for people and communities age 60+ in the Northern and Western suburbs of Melbourne, Victoria. Service Delivery Model: Provides door-to-door transport for older adults across 108 suburbs in Melbourne	Partnerships	Partnership with Myagedcare which is a service that supports riders with the Link Community Transport booking.
Activus Transport Activus Transport	Australia	Activus Transport provides flexible and responsive community transport to customers who meet the eligibility criteria and live in the Sutherland Shire. Service Delivery Model: Activus Transport provides door-to-door transport using Activus Transport owned fleet of vehicles	Partnerships	Partnership with Myagedcare which is a service that supports riders with the Activus Transport booking.
Sopotniki opotniki	Slovenia	Sopotniki provides free car transport for the elderly in rural areas. The service is provided by volunteers and is free of charge. Service Delivery Model: Volunteer drivers provide free transport for older adults in rural areas.	Partnerships	This practice of intergenerational solidarity is an innovative approach towards the mobility of elders in rural areas.

<p>Vantastic</p> <p>Vantastic</p>	<p>Ireland</p>	<p>Vantastic provides specialist demand responsive accessible transport services to older persons to actively participate in the wider community and to have an independent lifestyle.</p> <p>Service Delivery Model: Vantastic services are either a car rental service and/or door-to-door minibus service.</p>	<p>Partnerships</p>	<p>This is the first older adult-specific travel in Dublin which makes it novel. According to Vantastic's reports, no other transportation services in Dublin provide door to door transport services. Vantastic offers two types of services: 1) the door-to-door transport, there is also a car rental service.</p>
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*Please refer to Master list appendix for detailed information

RECOMMENDATIONS

The findings from this international research highlights several possibilities for Canada to consider adopting. To ensure that older adults have appropriate, available, and accessible transportation options, there are several key recommendations that would encourage sustainable change for transportation options for Canadian older adults:

Older Adults Transportation Policy

- 1) Establish a national overarching entity to provide ongoing support and governance to transportation programs operating at the local level.
- 2) Local transportation implementation needs to be community-led, meaning that implementation should involve key stakeholders early and often. Key stakeholders who can help with efficient transportation governance include service providers and operators, not-for-profit or non-governmental organizations, and provincial, territorial, and municipal governments.
- 3) Transportation solutions should look for opportunities to create secondary benefits that go beyond just getting an older adult from point A to point B, i.e. opportunities to increase social connectedness and reduce social isolation.

Multisectoral Partnerships

- 1) To ensure long-term success and sustainability, older adults transportation initiatives should involve multiple partnerships including government, non-profit, and local private sector businesses. Multisector partnerships should provide the

opportunity for multiple streams of funding from large scale corporate sponsors to government grants and contributions from local businesses.

Adapting Current Technology

- 1) Transportation initiatives must be able to secure the appropriate technology to operationalize and streamline their day-to-day service delivery. This means ensuring that the technology solutions are flexible to adapt to the needs of different communities.
- 2) Technology solutions must be affordable for all communities, from large, urban metropolises to small rural townships. Both the overarching national governance structures and multisectoral partnerships help to ensure affordable technology solutions by purchasing the technology solutions in bulk at discounted rates and offering affordable licenses to local communities.
- 3) Technology solutions must offer flexibility so local transportation programs can have different service delivery options (i.e. being able to drop a passenger at the door versus booking a trip where the driver will accompany them during their grocery shopping). Having flexibility in technology allows transportation providers to adjust service based on the customers needs. This recognizes that older adults aren't just all the same.

IMPACT OF THIS PROJECT

Direct Impacts

- 1) Through global outreach, HelpAge Canada can continue to build and develop relationships with international age-friendly organizations, furthering the dialogue and discovery of innovative age-friendly transportation solutions using the findings of this research as a benchmark.
- 2) The international findings from this report will be showcased at a National Conference of Older Adults Transportation. The capstone projects and international findings will help inspire innovative solutions to age-friendly transportation in Canada. Future phases of the F.A.S.T. Track project will leverage these recommendations for the development and implementation of age friendly transportation solutions in Canada.
- 3) HelpAge Canada, along with O'Hara Aging + Accessibility and CanAge, will help share the knowledge and recommendations in this report with the broader transportation sector. Findings from the F.A.S.T. Track project will also help to shape and develop Canada's first National Older Adults Transportation Strategy, outlining the most significant gaps in age-friendly transportation in Canada and a roadmap to overcoming these gaps. It will be the first national strategy that will consider the transportation networks of Canada from a holistic perspective.

Indirect impacts

- 1) Older people in communities will be able to engage in social life with other members of the community through increased access and opportunities to spaces, programs and services that foster social connectedness and belonging.

CONCLUSION

The population of Canada is increasingly aging, posing new transportation issues and concerns. To meet their travel demands and promote their health and quality of life, older adults require affordable and adequate transportation options. Meeting the transportation needs of elders while also controlling safety and other risks will necessitate new policies, collaborative partnerships, and updated technology that address the transportation issues for older adults. Shaping Canada's transportation landscape for older adults would result in hopefully the elimination of social marginalization, and promote independent living, particularly for older adults. Further research should also consider automated vehicles as a possible age-friendly transportation solution. Providing suitable mobility solutions for older adult citizens allows them to continue to participate fully in cultural, educational, and health-related activities and services, as well as to stay active participants. At the local, regional, and national levels, developing new mobility solutions or upgrading current ones will create new opportunities for innovative small businesses, transportation operators, social economy start-ups, and NGOs.

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